

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Cindee Ewell on January 26, 2010.

The application has been amended as follows:

In claim 138, in step (i), after "cells per second;" -- and -- has been inserted.

In claim 138, in step (g), "viable" has been deleted and -- live -- has been inserted therefor.

In claim 138, in step (i), after "collecting", "viable" has been deleted and -- live -- has been inserted therefor.

In claim 138, in step (i), after "hundred", "viable" has been deleted and -- live -- has been inserted therefor.

In claim 138, in step (j), "viable" has been deleted and -- live -- has been inserted therefor.

The title has been amended to read:

-- Method of Establishing an Equine Artificial Insemination Sample --

The following is an examiner's statement of reasons for allowance:

A. The closest prior art of Rens et al teach a method of sex-sorting sperm using a modified MoFlo® high speed cell sorter which includes a new elliptical nozzle capable of more accurately orienting sperm and which provides improved sorting rates. Rens et al teach use of the modified MoFlo® sorter at sampling rates of 500 sperm/second and 2000 sperm/second (column 6). Rens teaches that the modified MoFlo® sorter also allows for sample rates up to at least 15,000 sperm/sec (column 4, lines 29-31). Rens does not specifically disclose using the modified MoFlo® sorter to sex-sort equine sperm, particularly at a separation rate of at least nine hundred live equine sperm cells per second. As set forth in the Brief of June 30, 2009, the concept of sampling rates is distinct from the concept of the rate at which live sperm cells are separated based upon sex characteristics of the sperm cells and Rens does not specifically disclose or suggest the use of the modified MoFlo® sorter to separate equine sperm cells based on sex characteristics at a rate of at least 900 live equine sperm cells per second. Further, Rens does not specify the solution into which the sorted sperm cells are collected and thus does not teach collecting sex-sorted equine sperm cells in a skim milk solution. The prior art of Wilhelm teaches methods of cryopreservation of equine sperm. The reference discloses use of a skim milk solution containing 2% egg yolk (i.e., SMEY, page 322) as a sperm extender medium. The prior art of Rath teaches the concept of collecting sex-sorted porcine sperm in a collection medium composed of TEST (N-tris(hydroxymethyl)methyl-2-aminoethane-sulfonic acid plus Tris) extender containing 2% egg yolk (page 796). Rath refers to "the TEST yolk (2%) extender that is necessary

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as a collection medium for sorted spermatozoa” (page 799). The prior art does not teach or suggest the presently claimed methods as a whole which require differentiating between equine sperm cells entrained in droplets based upon said sex characteristic, separating the droplets based upon the sex characteristic of the equine sperm cells entrained at a rate of at least nine hundred live equine sperm cells per second, establishing a skim milk solution into which the separated droplets are collected, collecting live equine sperm cells separated based upon the sex characteristic in said skim milk solution at a rate of at least nine hundred live equine sperm cells per second, and establishing an equine artificial insemination sample containing said live equine sperm cells separated based upon the sex characteristics.

B. Support for the amendment to the claims to recite “live equine sperm cells” is found, for example, at page 36, line 20 to page 37, line 1 of the specification and in originally filed claim 7.

C. Signed copies of the Information Disclosure Statements filed on January 29, 2001, February 20, 2001 and October 11, 2005 are attached hereto. The signed IDSs differ from those previously mailed with the Office actions of May 1, 2006 and December 18, 2002 in that they include publication dates for a number of references that did not previously include a publication date. The originally provided signed IDSs were handwritten, whereas the present copies are electronically initialed/signed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carla Myers whose telephone number is 571-272-0747. The examiner can normally be reached on Monday-Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Nguyen can be reached on 571-272-0731. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carla Myers/

Primary Examiner, Art Unit 1634